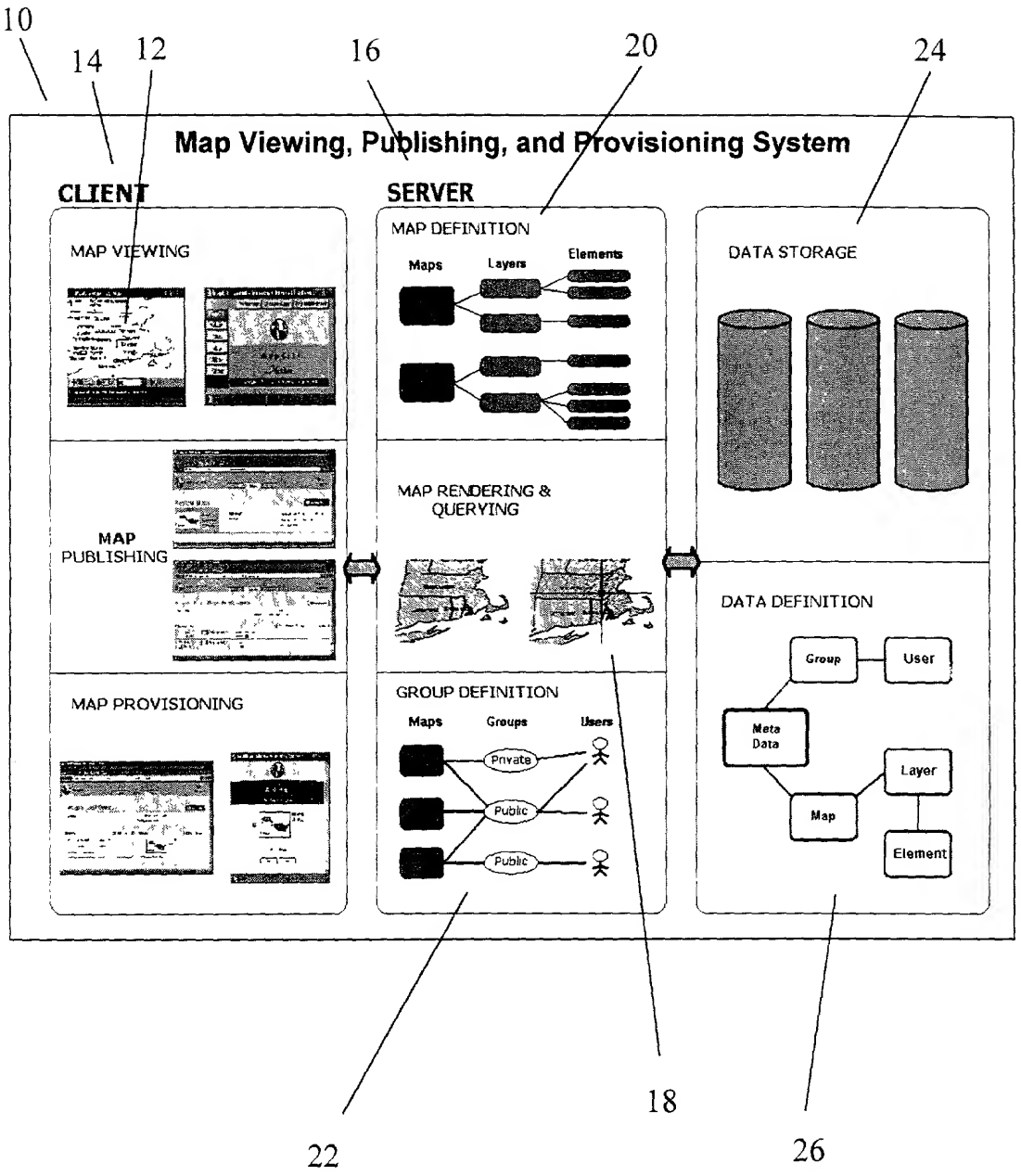

10
14
12
16
20
24
Map Viewing, Publishing, and Provisioning System
CLIENT
SERVER
MAP VIEWING
MAP DEFINITION
Maps
Layers
Elements
DATA STORAGE
MAP
PUBLISHING
MAP RENDERING &
QUERYING
DATA DEFINITION
Group
User
Meta
Data
Layer
Map
Element
MAP PROVISIONING
GROUP DEFINITION
Maps
Groups
Users
Private
Public
Public
22
18
26

FIGURE 1

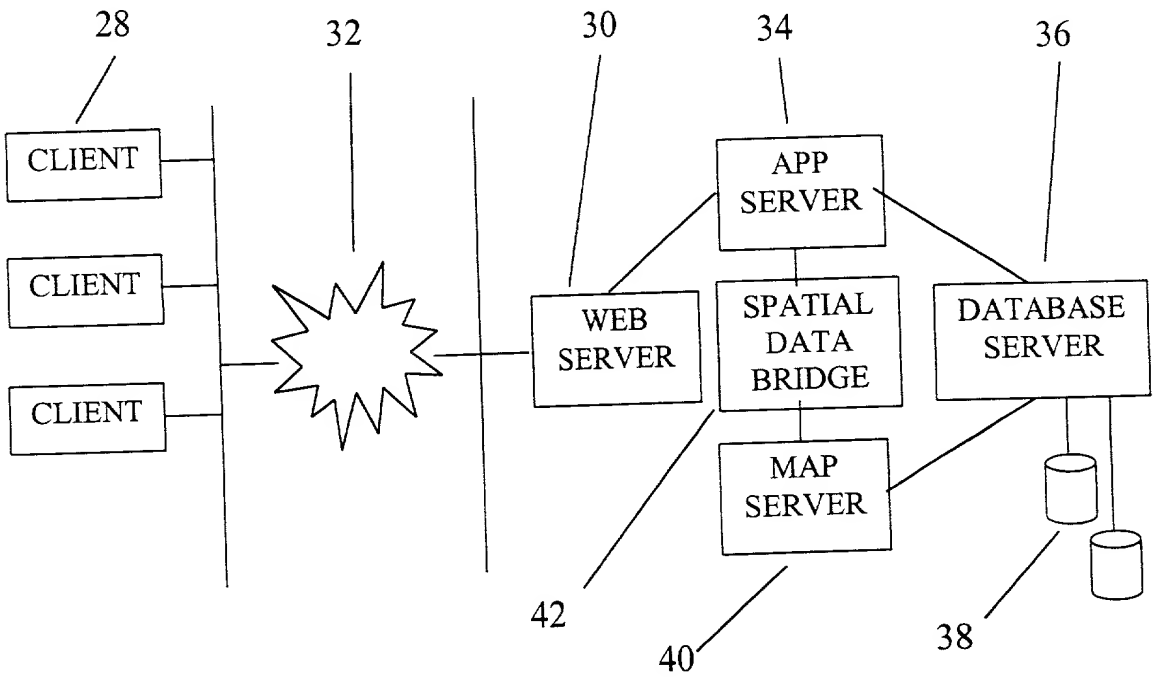

28
32
30
34
36
CLIENT
CLIENT
CLIENT
APP SERVER
WEB SERVER
SPATIAL DATA BRIDGE
DATABASE SERVER
MAP SERVER
42
40
38

FIGURE 2

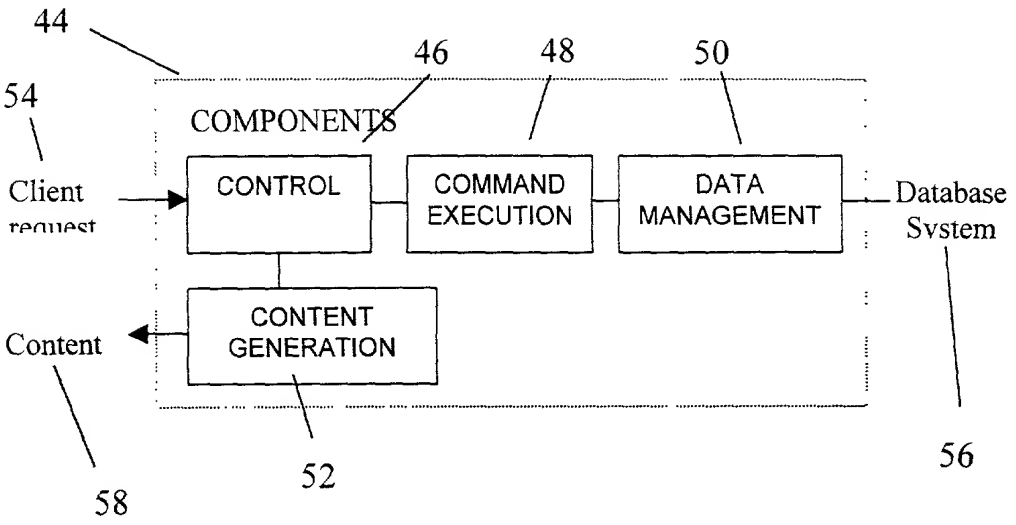

44
46
48
50
54
COMPONENTS
Client
request
CONTROL
COMMAND
EXECUTION
DATA
MANAGEMENT
Database
System
CONTENT
GENERATION
Content
58
52
56

FIGURE 3

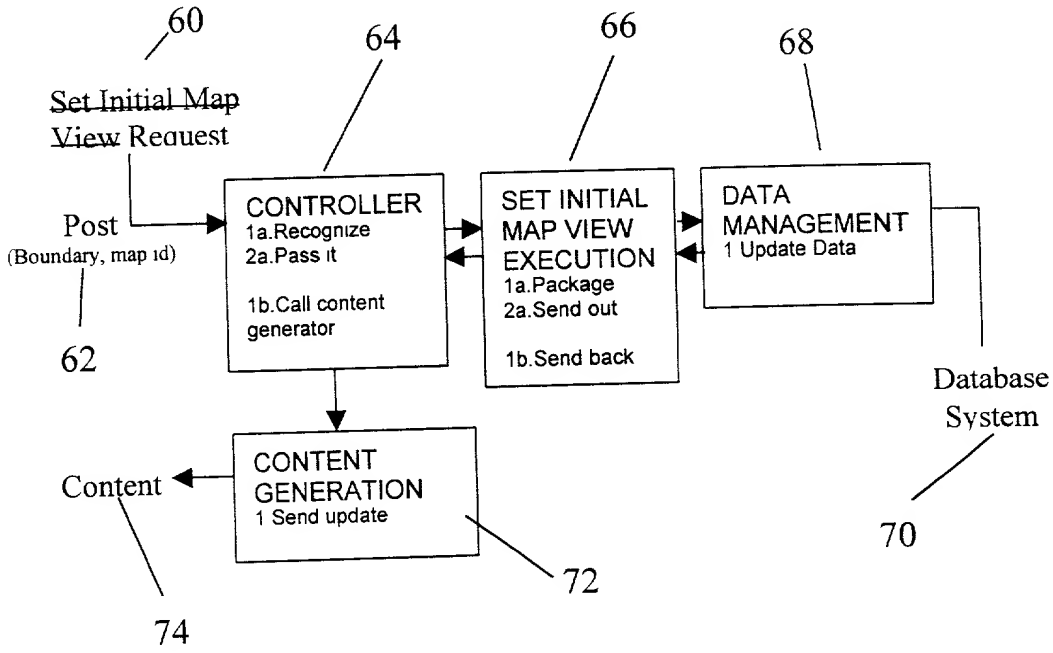

60
64
66
68
Set Initial Map View Request
Post
(Boundary, map id)
62
CONTROLLER
1a.Recognize
2a.Pass it
1b.Call content generator
SET INITIAL MAP VIEW EXECUTION
1a.Package
2a.Send out
1b.Send back
DATA MANAGEMENT
1 Update Data
Database System
70
CONTENT GENERATION
1 Send update
72
Content
74

FIGURE 4

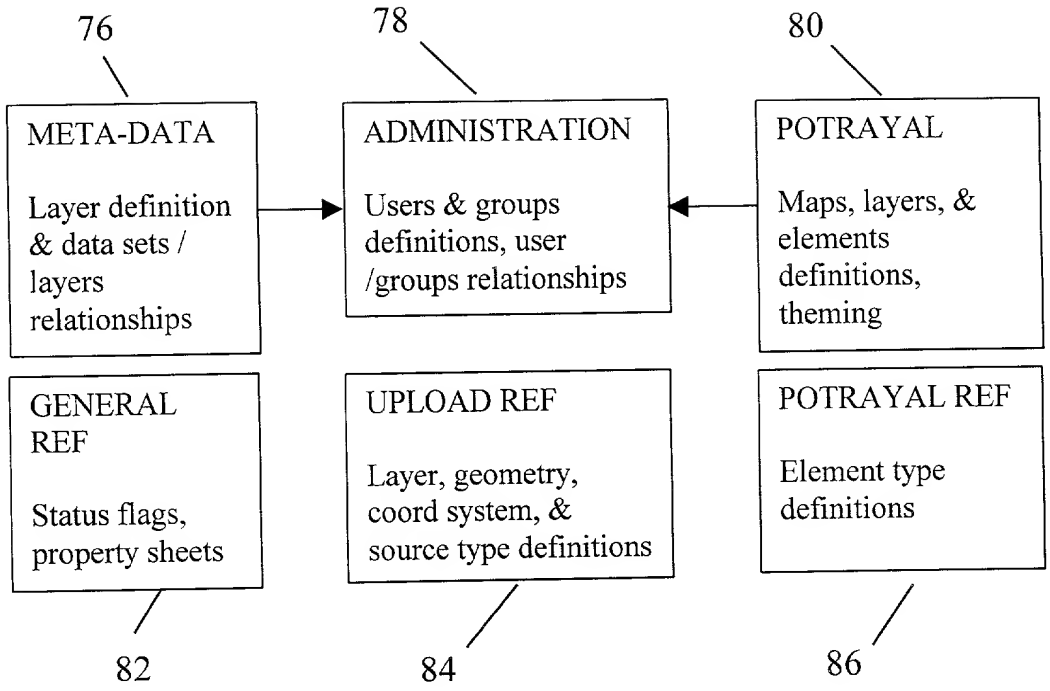

76
78
80
META-DATA
Layer definition & data sets / layers relationships
ADMINISTRATION
Users & groups definitions, user /groups relationships
POTRAYAL
Maps, layers, & elements definitions, theming
GENERAL REF
Status flags, property sheets
UPLOAD REF
Layer, geometry, coord system, & source type definitions
POTRAYAL REF
Element type definitions
82
84
86

FIGURE 5

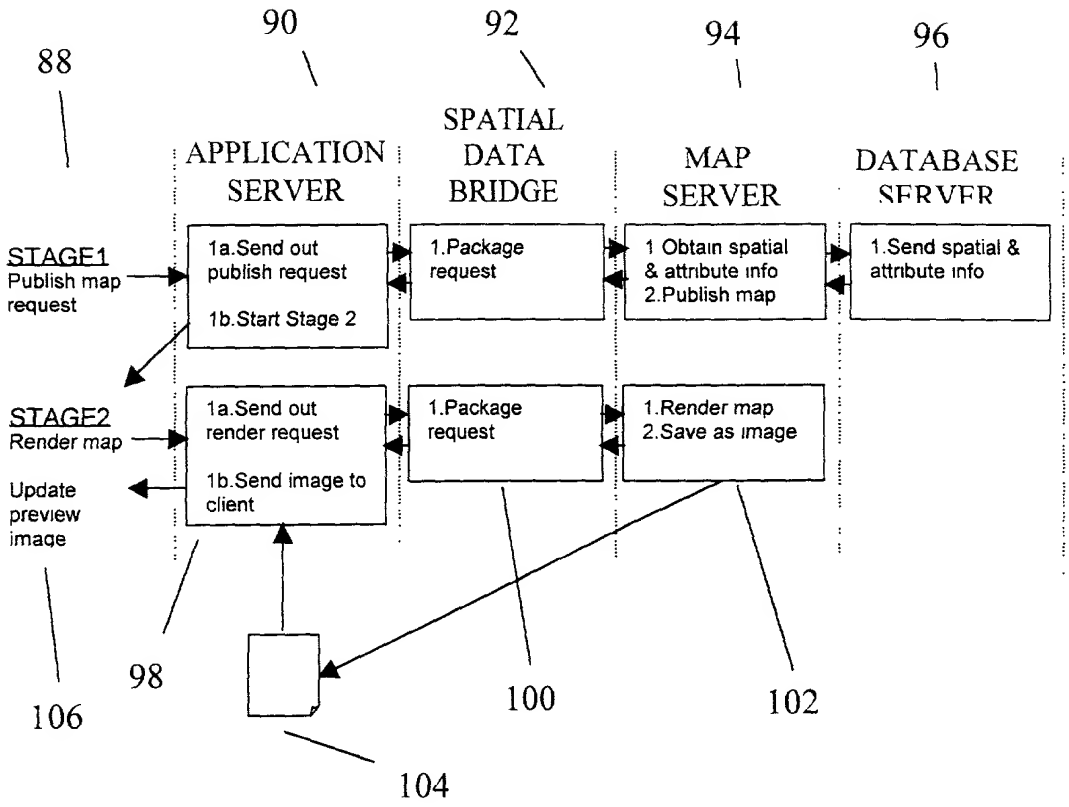

88
90
92
94
96
APPLICATION SERVER
SPATIAL DATA BRIDGE
MAP SERVER
DATABASE SERVER
STAGE1
Publish map request
1a.Send out publish request
1b.Start Stage 2
1.Package request
1 Obtain spatial & attribute info
2.Publish map
1.Send spatial & attribute info
STAGE2
Render map
Update preview image
1a.Send out render request
1b.Send image to client
1.Package request
1.Render map
2.Save as image
106
98
100
102
104

FIGURE 6

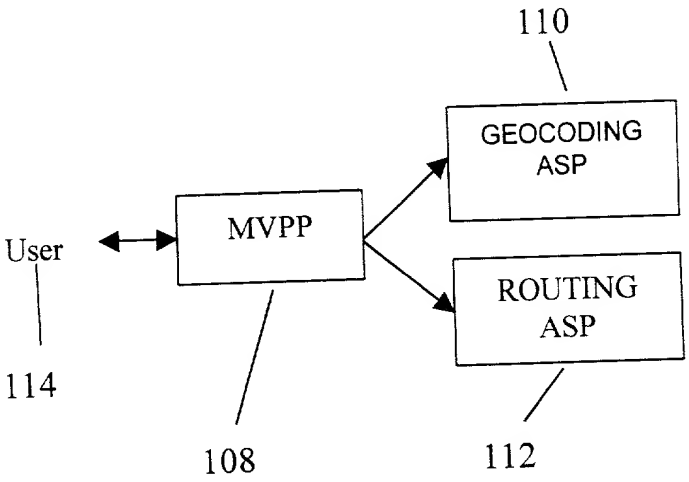


FIGURE 7

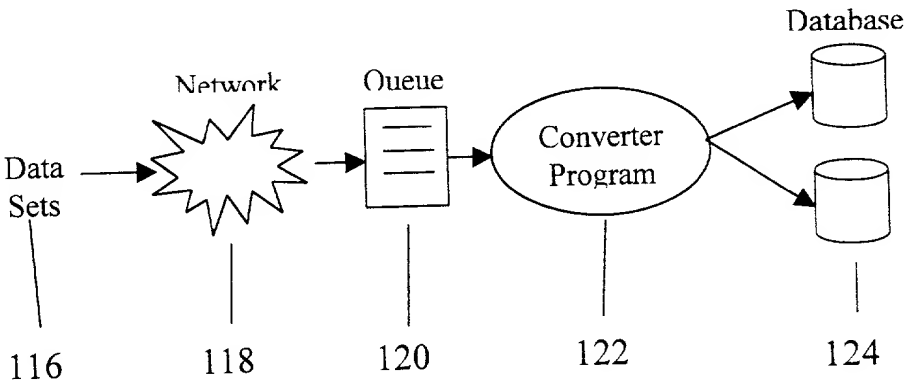

Database
Network
Queue
Converter
Program
Data
Sets
116
118
120
122
124

FIGURE 8

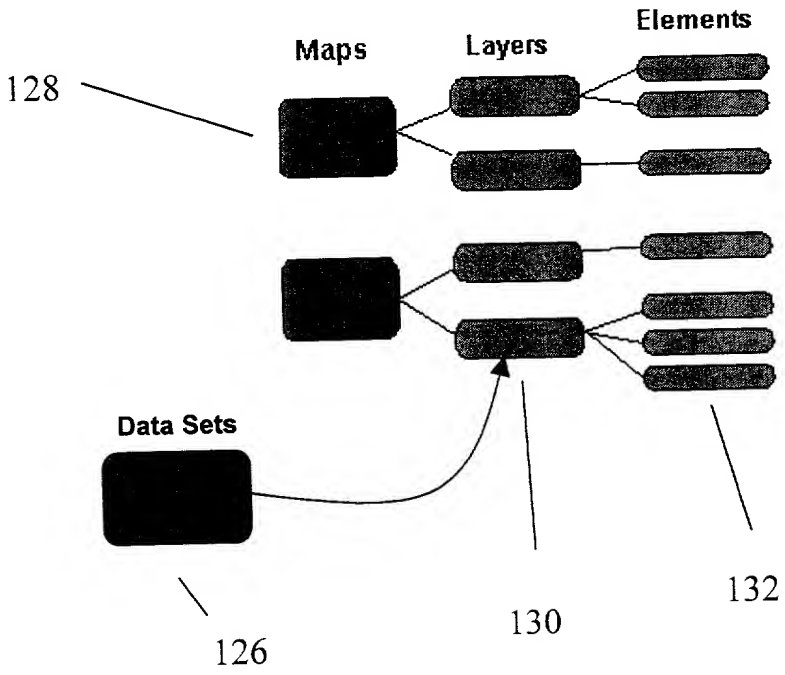


FIGURE 9

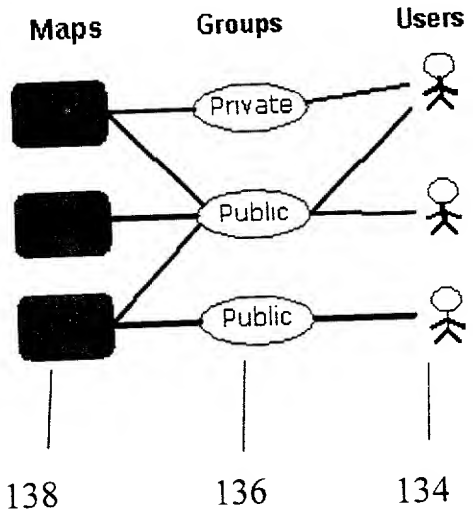


FIGURE 10

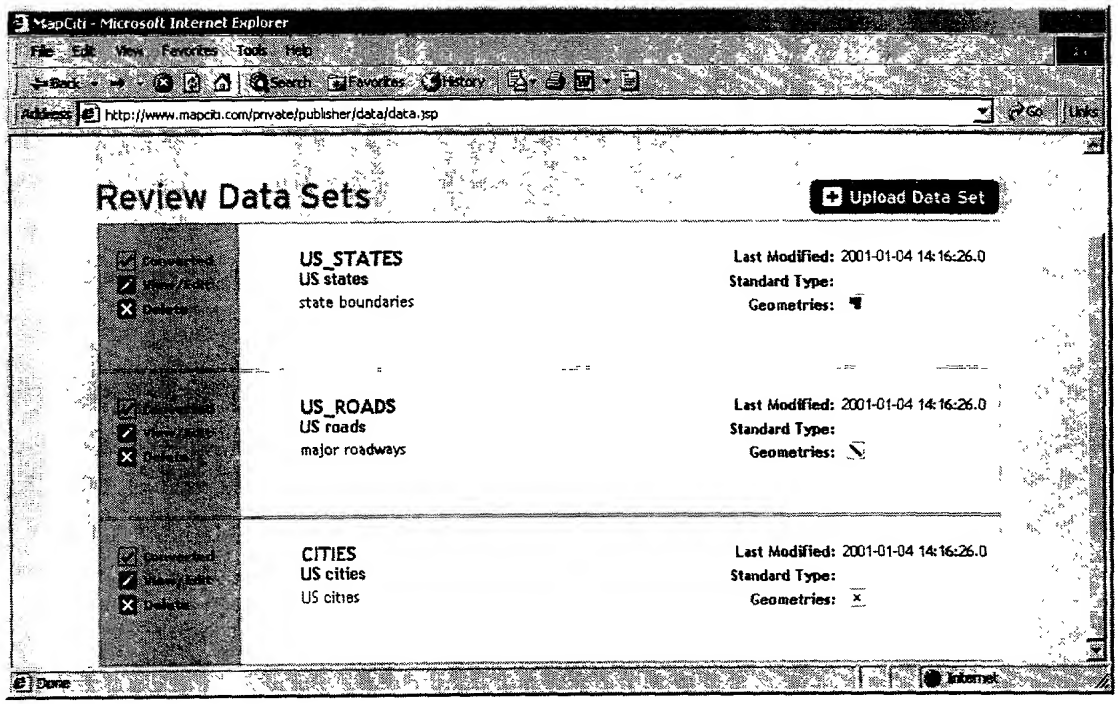

MapCiti - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://www.mapciti.com/private/publisher/data/data.jsp
Go Links
Review Data Sets
Upload Data Set
US_STATES
US states
state boundaries
Last Modified: 2001-01-04 14:16:26.0
Standard Type:
Geometries:
US_ROADS
US roads
major roadways
Last Modified: 2001-01-04 14:16:26.0
Standard Type:
Geometries:
CITIES
US cities
US cities
Last Modified: 2001-01-04 14:16:26.0
Standard Type:
Geometries:
Done
Internet

FIGURE 11

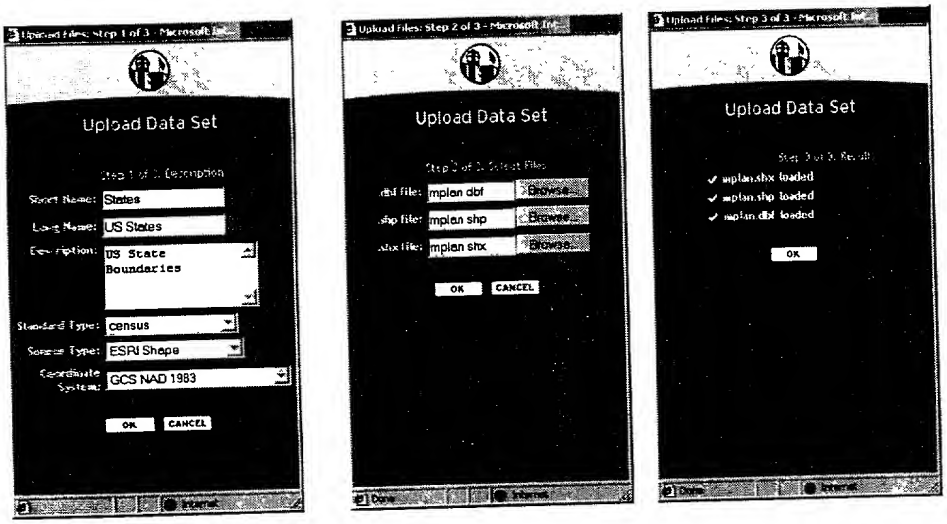


FIGURE 12 A,B,C

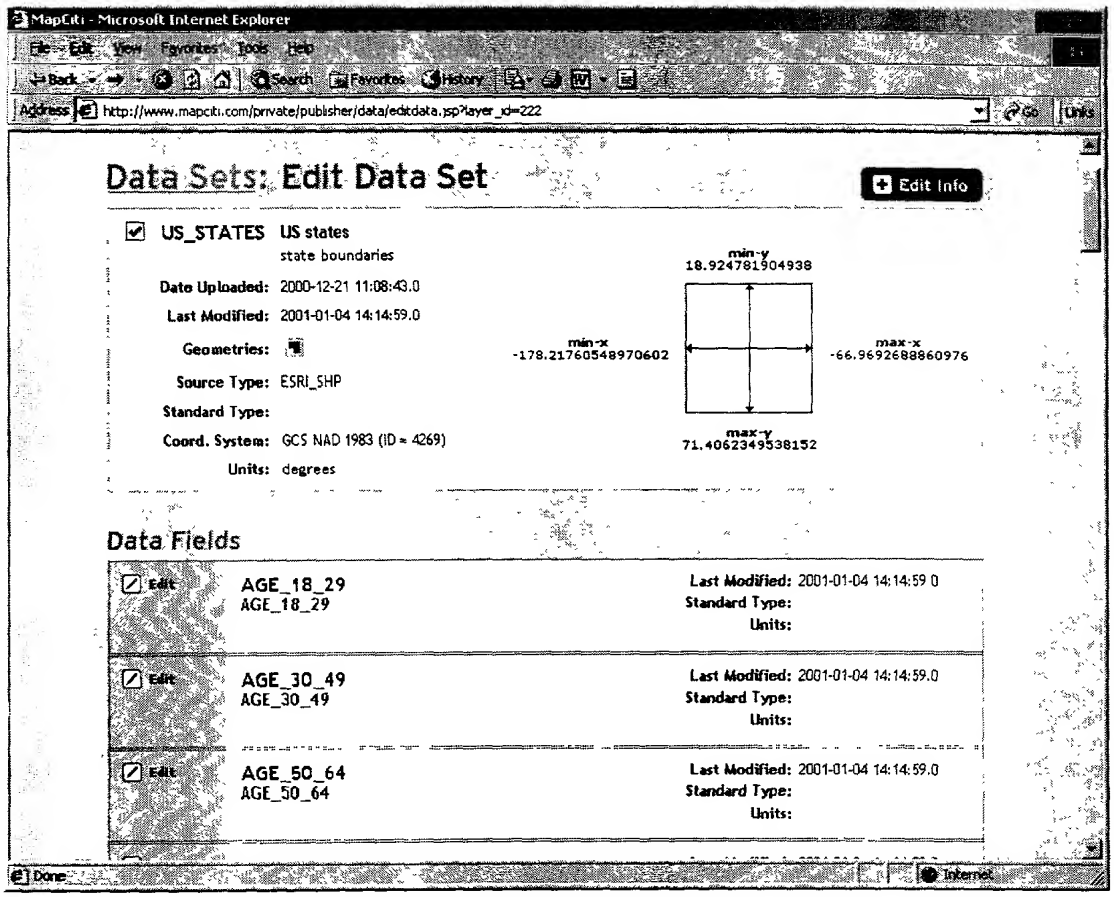

MapCiti - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://www.mapciti.com/private/publisher/data/editdata.jsp?layer_id=222
Go Links
Data Sets: Edit Data Set
Edit Info
US_STATES US states
state boundaries
Date Uploaded: 2000-12-21 11:08:43.0
Last Modified: 2001-01-04 14:14:59.0
Geometries:
Source Type: ESRI_SHP
Standard Type:
Coord. System: GCS NAD 1983 (ID = 4269)
Units: degrees
min-y
18.924781904938
min-x
-178.21760548970602
max-x
-66.9692688860976
max-y
71.4062349538152
Data Fields
Edit
AGE_18_29
AGE_18_29
Last Modified: 2001-01-04 14:14:59.0
Standard Type:
Units:
Edit
AGE_30_49
AGE_30_49
Last Modified: 2001-01-04 14:14:59.0
Standard Type:
Units:
Edit
AGE_50_64
AGE_50_64
Last Modified: 2001-01-04 14:14:59.0
Standard Type:
Units:
Done
Internet

FIGURE 13

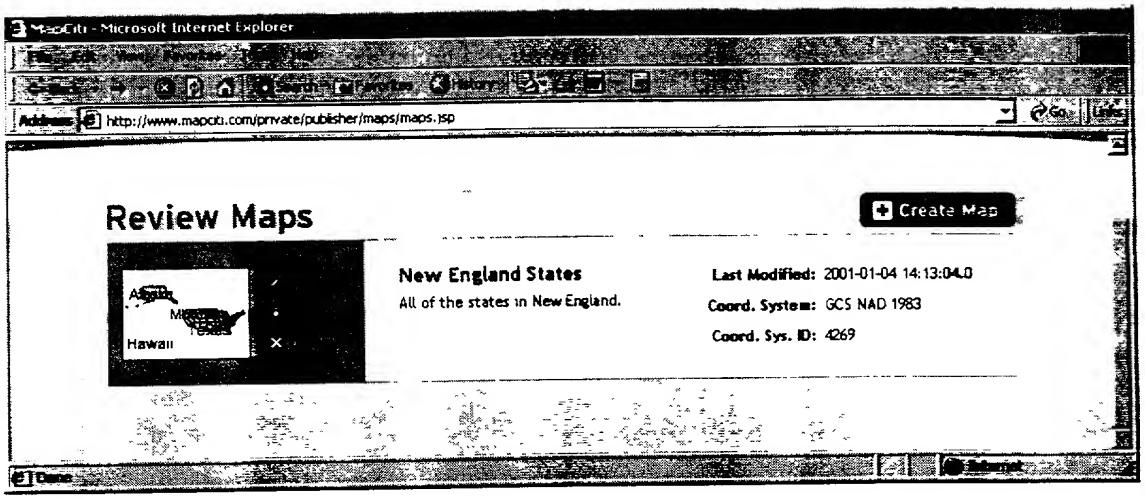

MapCity - Microsoft Internet Explorer
http://www.mapcity.com/private/publisher/maps/maps.jsp
Review Maps
Create Map
Hawaii
New England States
All of the states in New England.
Last Modified: 2001-01-04 14:13:04.0
Coord. System: GCS NAD 1983
Coord. Sys. ID: 4269

FIGURE 14

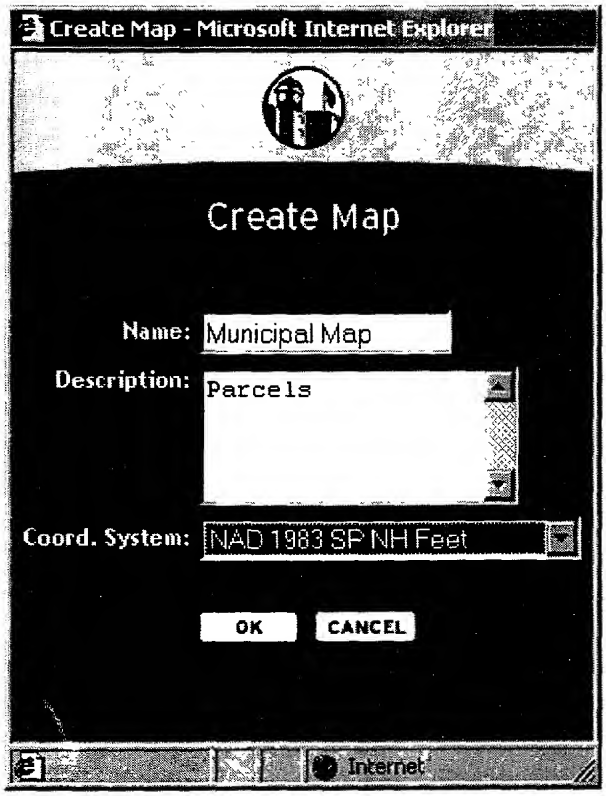
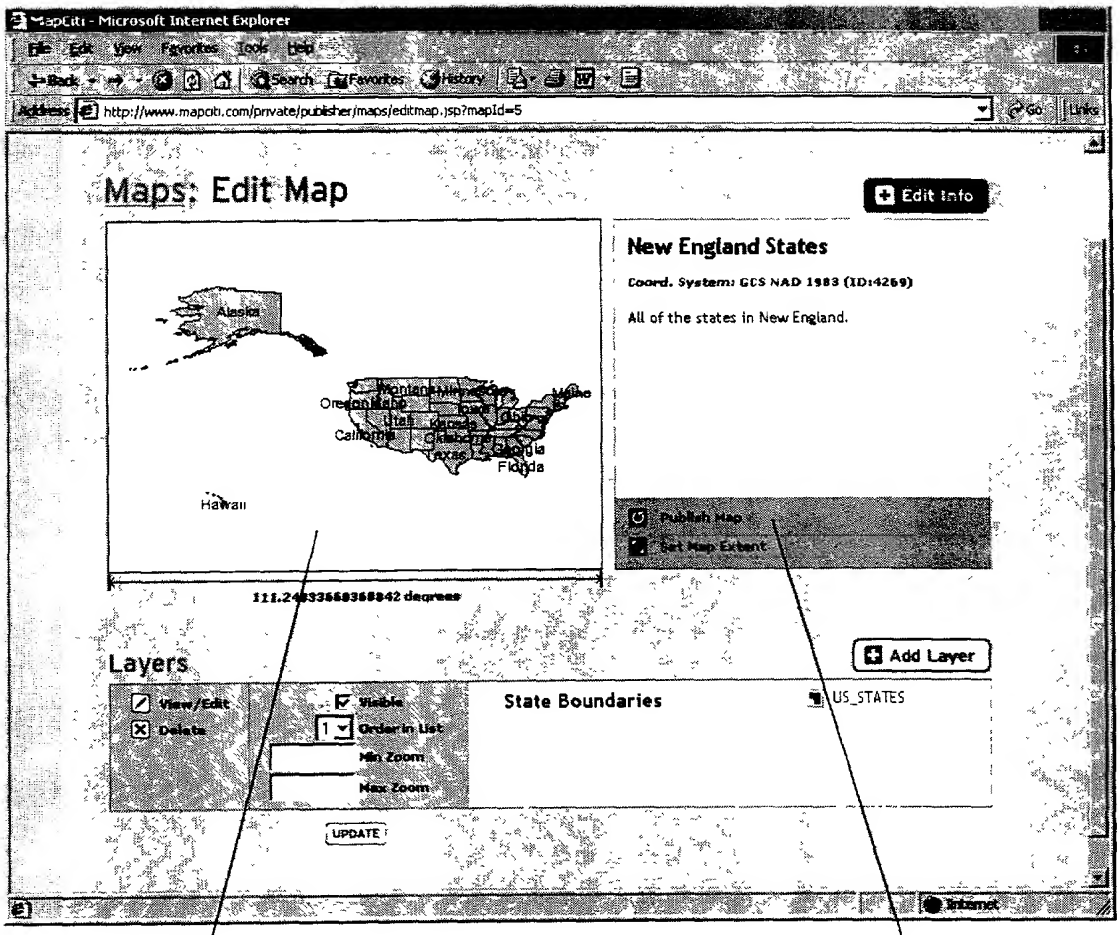

Create Map - Microsoft Internet Explorer
Create Map
Name:
Municipal Map
Description:
Parcels
Coord. System:
NAD 1983 SP NH Feet
OK
CANCEL
Internet

FIGURE 15



140

142

FIGURE 16

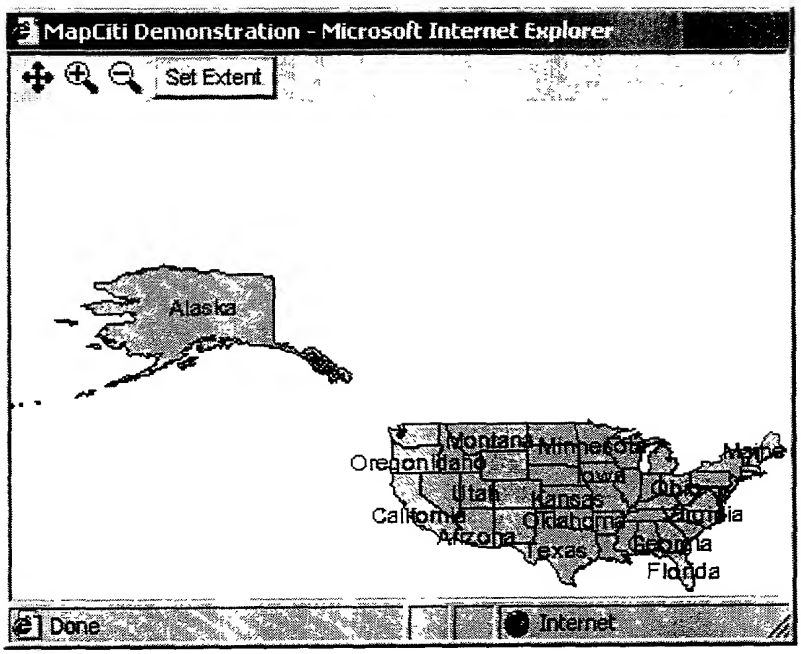

MapCiti Demonstration - Microsoft Internet Explorer
Set Extent
Alaska
Oregon
Idaho
Utah
Arizona
Texas
Florida
Done
Internet

FIGURE 17

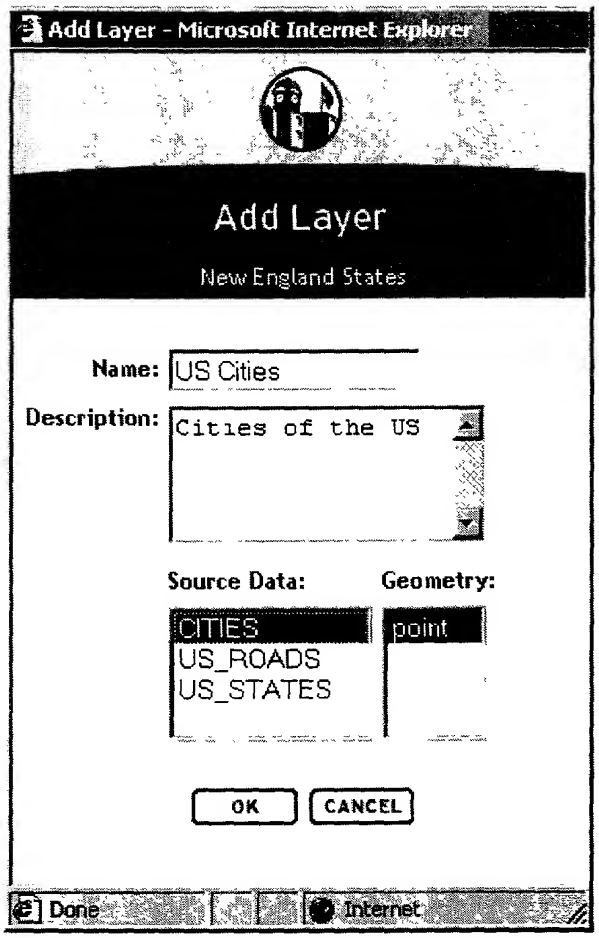

Add Layer - Microsoft Internet Explorer
Add Layer
New England States
Name:
US Cities
Description:
Cities of the US
Source Data:
Geometry:
CITIES
US_ROADS
US_STATES
point
OK
CANCEL
Done
Internet

FIGURE 18

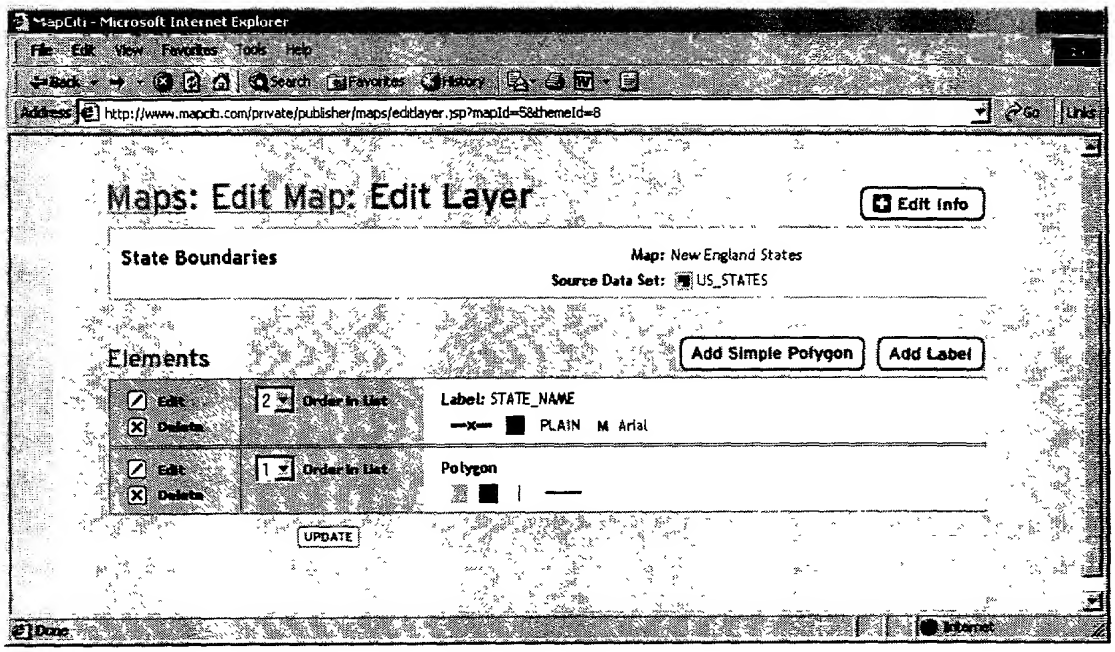

MapCity - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://www.mapcity.com/private/publisher/maps/editlayer.jsp?mapId=58themeId=8
Go Links
Maps: Edit Map: Edit Layer
Edit Info
State Boundaries
Map: New England States
Source Data Set: US_STATES
Elements
Add Simple Polygon
Add Label
Edit
Delete
2
Order in List
Label: STATE_NAME
PLAIN M Arial
Edit
Delete
1
Order in List
Polygon
UPDATE
Done
Internet

FIGURE 19

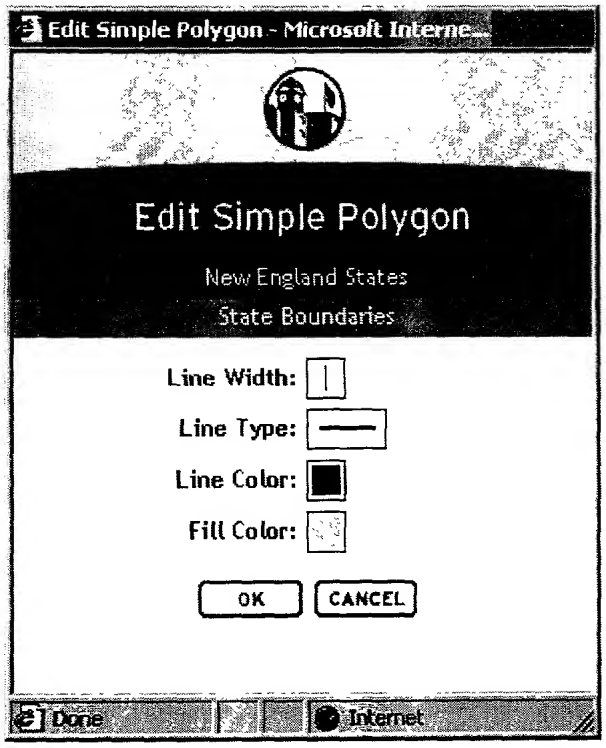

Edit Simple Polygon - Microsoft Interne...
Edit Simple Polygon
New England States
State Boundaries
Line Width:
Line Type:
Line Color:
Fill Color:
OK
CANCEL
Done
Internet

FIGURE 20

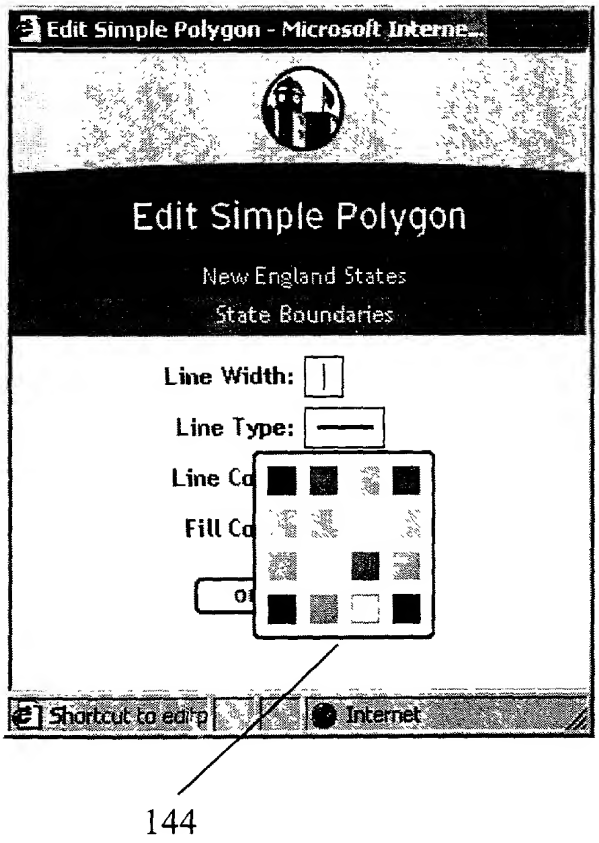
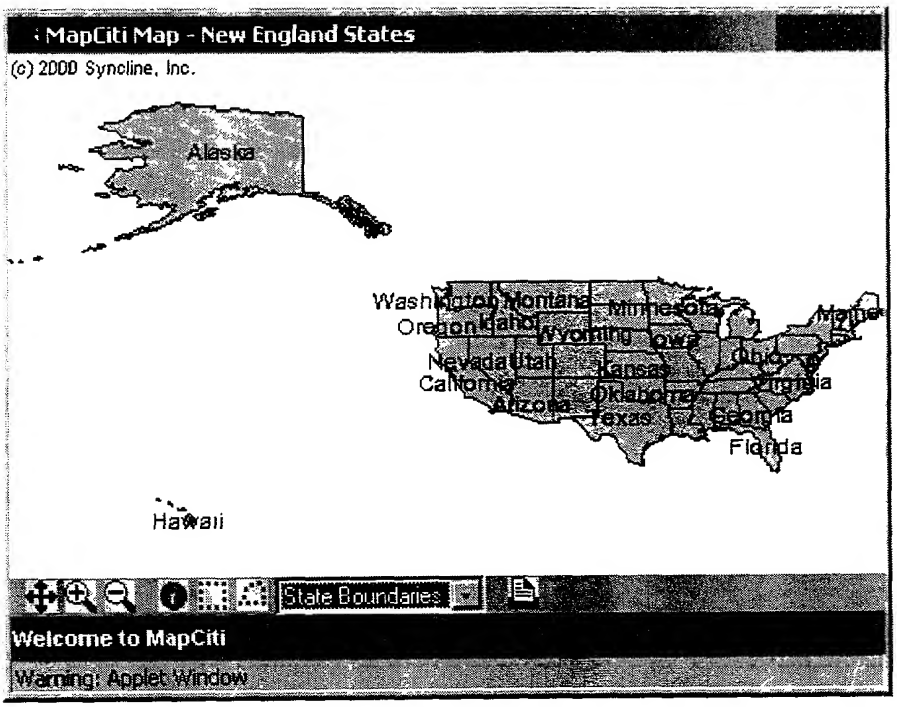

Edit Simple Polygon - Microsoft Interne...
Edit Simple Polygon
New England States
State Boundaries
Line Width:
Line Type:
Line Co
Fill Co
Shortcut to edit
Internet
144

FIGURE 21


MapCiti Map - New England States
(c) 2000 Syncline, Inc.
Alaska
Hawaii
State Boundaries
Welcome to MapCiti
Warning: Applet Window

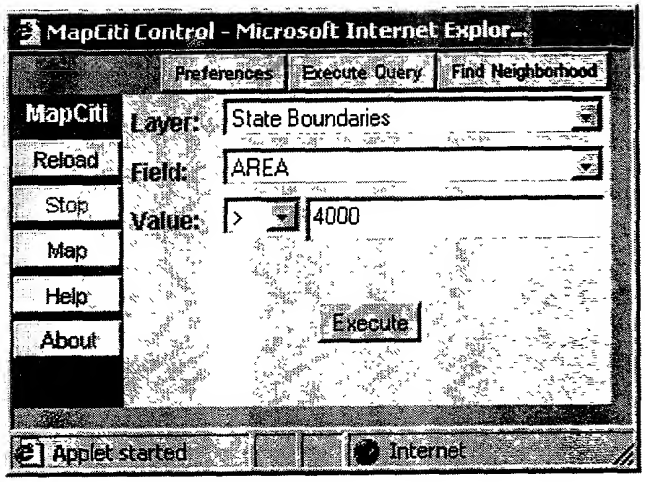

MapCiti Control - Microsoft Internet Explor...
Preferences
Execute Query
Find Neighborhood
MapCiti
Reload
Stop
Map
Help
About
Layer:
State Boundaries
Field:
AREA
Value:
>
4000
Execute
Applet started
Internet

FIGURE 22 A,B

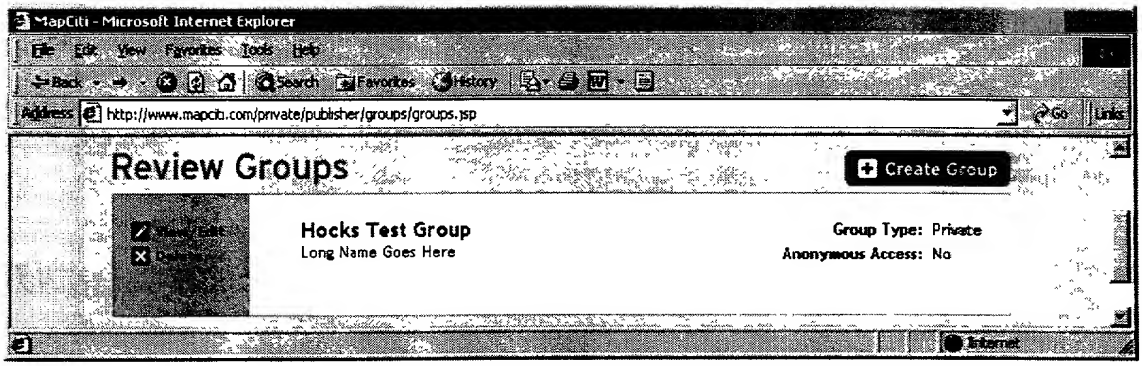

MapCiti - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://www.mapciti.com/private/publisher/groups/groups.jsp
Go Links
Review Groups
Create Group
Hocks Test Group
Long Name Goes Here
Group Type: Private
Anonymous Access: No
Internet

FIGURE 23

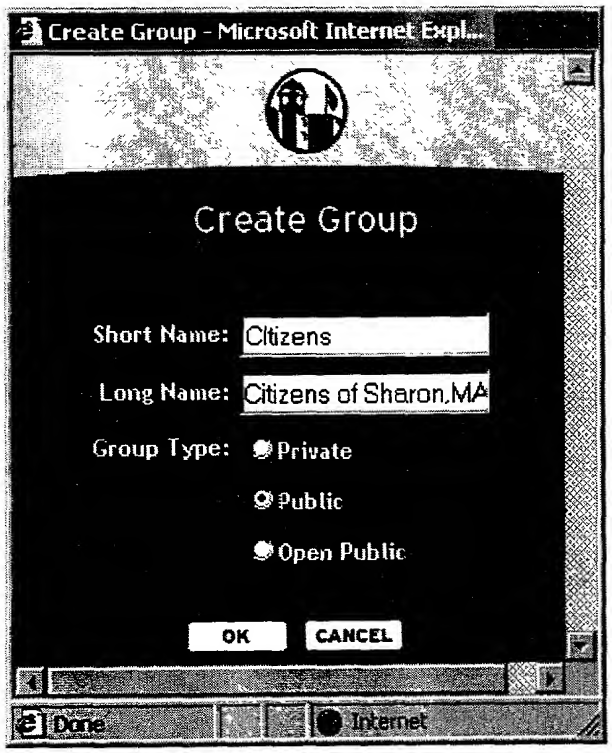

Create Group - Microsoft Internet Expl...
Create Group
Short Name:
Cltizens
Long Name:
Citizens of Sharon,MA
Group Type:
Private
Public
Open Public
OK
CANCEL
Done
Internet

FIGURE 24

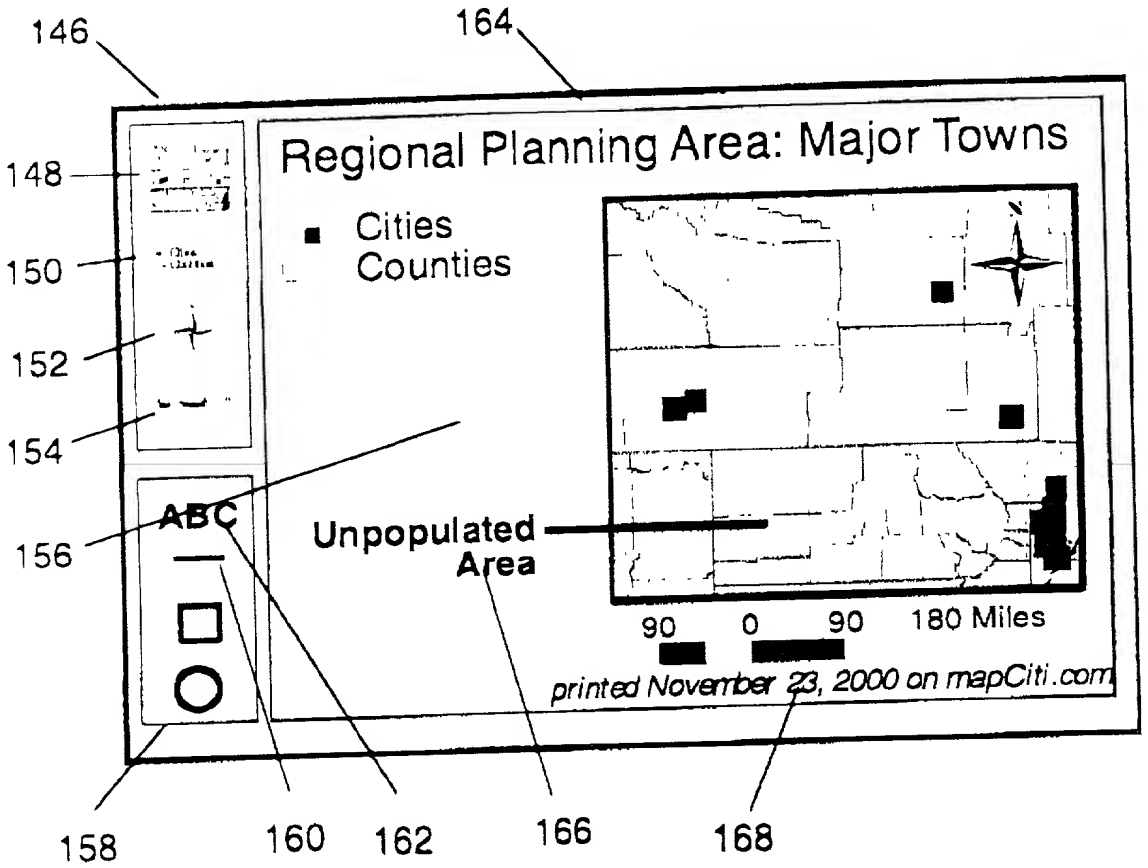

146
164
148
150
152
154
156
158
160
162
166
168
Regional Planning Area: Major Towns
Cities
Counties
ABC
Unpopulated Area
90 0 90 180 Miles
printed November 23, 2000 on mapCiti.com

FIGURE 25